

PRODUCT INFORMATION

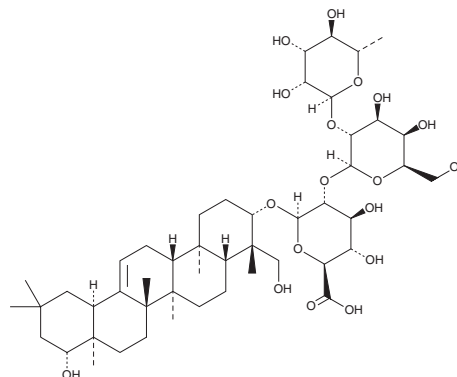


Soyasaponin Bb

Item No. 25140

CAS Registry No.: 51330-27-9
Formal Name: (3 β ,4 β ,22 β)-22,23-dihydroxyolean-12-en-3-yl O-6-deoxy- α -L-mannopyranosyl-(1 \rightarrow 2)-O- β -D-galactopyranosyl-(1 \rightarrow 2)- β -D-glucopyranosiduronic acid

Synonym: Soyasaponin I
MF: C₄₈H₇₈O₁₈
FW: 943.1
Purity: \geq 95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Soyasaponin Bb is supplied as a crystalline solid. A stock solution may be made by dissolving the soyasaponin Bb in the solvent of choice. Soyasaponin Bb is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of soyasaponin Bb in these solvents is approximately 10, 5, and 15 mg/ml, respectively.

Soyasaponin Bb is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, soyasaponin Bb should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Soyasaponin Bb has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Soyasaponin Bb is a triterpenoid saponin that has been found in soy and has enzyme inhibitory, antimetastatic, anti-inflammatory, and neuroprotective biological activities.¹⁻⁶ It selectively inhibits human recombinant and porcine kidney renin (IC₅₀s = 30 and 30 μ g/ml, respectively) over bovine trypsin, human urinary kallikrein, and rabbit angiotensin converting enzyme (ACE) when used at a concentration of 100 μ g/ml.² Soyasaponin Bb inhibits the mouse brain sialyltransferase ST3GAL1 (K_i = 2.1 μ M) and decreases levels of α 2,3-linked sialic acid on the cell surface and decreases migration of B16/F10 mouse melanoma cells *in vitro* when used at a concentration of 75 μ M.^{3,4} It also dose-dependently increases viability and mRNA expression of heme oxygenase-1 (HO-1) in BRL 3A immortalized rat hepatocytes subjected to alcohol-induced oxidative stress.⁵ Soyasaponin Bb (10 mg/kg per day) increases the latency to enter the dark chamber in a passive avoidance test and the percentage of spontaneous alterations in the Y-maze test in a rat model of learning and memory impairment induced by ibotenic acid (Item No. 14584).⁶

References

1. Zhang, W. and Popovich, D.G. *Molecules* **14**(8), 2959-2975 (2009).
2. Takahashi, S., Hori, K., Shinbo, M., *et al.* *Biosci. Biotechnol. Biochem.* **72**(12), 3232-3236 (2008).
3. Wu, C.-Y., Hsu, C.-C., Chen, S.-T., *et al.* *Biochem. Biophys. Res. Commun.* **284**(2), 466-469 (2001).
4. Chang, W.-W., Yu, C.-Y., Lin, T.-W., *et al.* *Biochem. Biophys. Res. Commun.* **341**(2), 614-619 (2006).
5. Lijie, Z., Ranran, F., Xiuying, L., *et al.* *Pharmacogn. Mag.* **12**(48), 302-306 (2016).
6. Hong, S.-W., Heo, H.-S., Yang, J.-h., *et al.* *PLoS One* **8**(12), e81556 (2013).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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